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STAPELIEAE FROM SOUTH  
TROPICAL AFRICA, III.

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Recently, whilst searching through the bibliography of the adjacent floral areas for references to the *Stapelieae* of the Flora Zambesiaca area, there came to light an excellent drawing of *Caralluma schweinfurthii* Berger (Robyns, Flore Sperm. Parc Nat. Albert 2: Pl. XI).

This figure depicted a plant which appeared to be identical in all respects with *C. piaranthoides* Obermeyer. Subsequently, examination of material of *C. schweinfurthii*, kindly sent on loan to Pretoria from Brussels, and of the type material of *C. piaranthoides*, together with the published descriptions and figures of both species, confirmed this view. It is consequently now possible to publish the following notes with the synonymy and distribution of this wide, spread species.

***Caralluma schweinfurthii*** Berger, *Stapelieen und Kleinien*: 103 (1910).—White & Sloane, *Stapelieae* 1: 274 (1937).—Robyns, *Flore Sperm. Parc Nat. Albert* 2: 104 (1947).—Jacobsen, *Handb. Succ. Pl.* 1: 255 (1960). Type: Congo Sous-district de la plaine de la Rutshuru, *Stuhlmann* 2208 (B, holotype †); Vitshumbi, *De Witte* 1023 (BR, neotype).

*Caralluma piaranthoides* Obermeyer, in *Fl. Pl. S. Afr.* 15: t.599 (1935).—White & Sloane, *tom. cit.*: 285, 1184 et fig. 1232 (1937).—Luckhoff, *Stap. S. Afr.*: 32 et 36 (1952).—Jacobsen, *tom. cit.*: 252 (1960). Type: S. Rhodesia, Wankie Distr., *Levy* 8444 (PRE).

CONGO.—Sous-district de la plaine de la Rutshuru, 9. v. 1891, *Stuhlmann* 2208 (B†); Vitshumbi, fl. Oct. 1933, *De Witte* 1023 (BR); Kabare, fl. Aug. 1914, *Bequaert* 5381 (BR); Katanda, fr. Sept. 1937, *Lebrun* 7669 (BR); Rwindi, st. Oct.

1937, *Lebrun* 8056 (BR); Kanyasembe, fl. Dec. 1937, *Lebrun* 9231 (BR). Sous-district de la plaine de la Semliki: Kasonero, st. July 1914, *Bequaert* 5033 (BR).

RWANDA.—Bugesera, Kibugabuga, fr. 28. ix. 1953, *Liben* 639 (SRGH).

S. RHODESIA.—Wankie Distr.: cult. Transv. Mus., fl. March 1935, *Levy* 8444 (PRE); Lukosi Riv., cult. Nelspruit, fl. Feb./March 1965, *Leach* 12123 (B; BR; G; K; PRE; SRGH). Kariba Distr., Chirundu, fl. 16. iii. 1961 *Drummond & Rutherford-Smith* 6919 (SRGH). Binga Distr., Lusulu, fl. 27. ii. 1965, *Bingham* 1413 (SRGH).

TANZANIA.—Central Province, Great Ruaha Gorge, cult. Greendale, S. Rhodesia, fl. Feb. 1961, *Leach & Brunton* 10139 (PRE); Kondoa-Irangi, cult. Amani, fl. 5. iii. 1936, *Greenway* 4595 (EA, photo.); Iringa Escarp. cult. Langata, fl. Apr. 1962, *Bayliss*, s.n. (PROB).

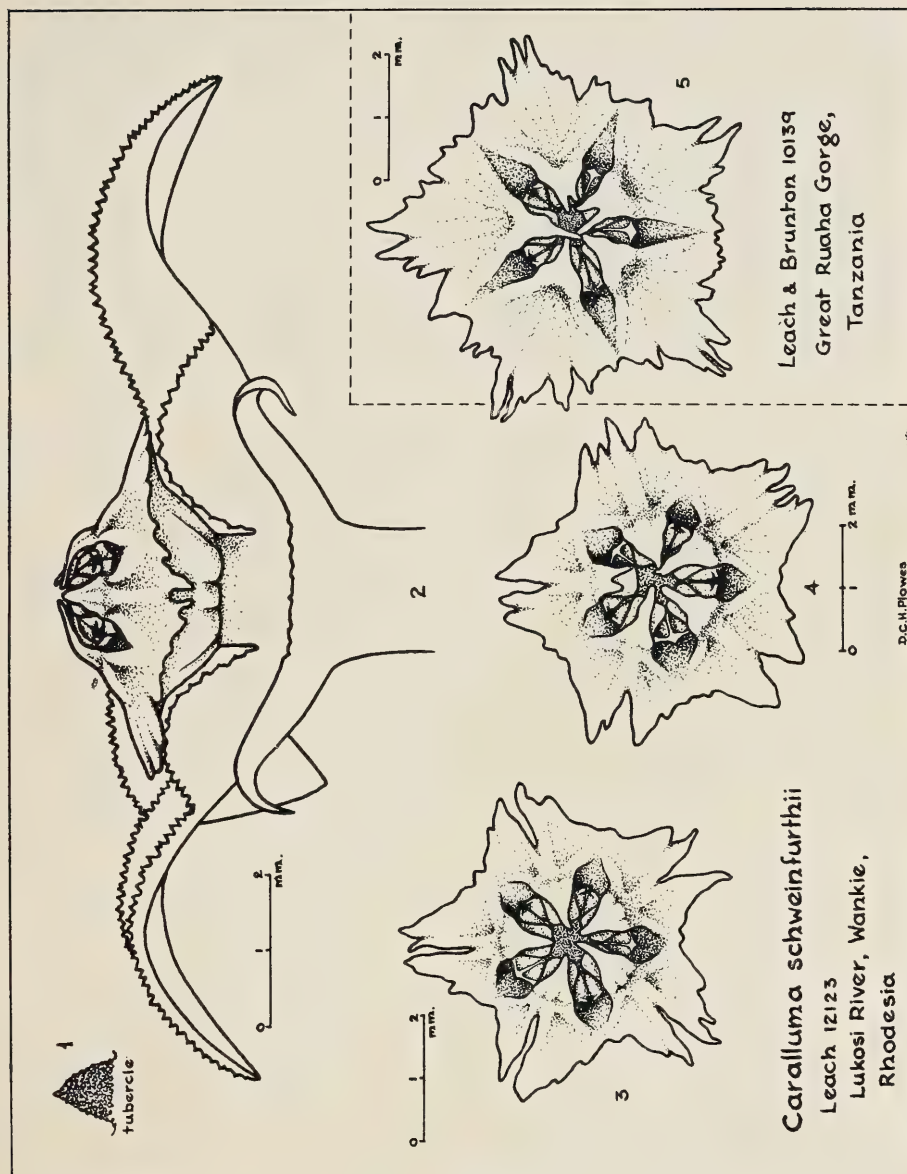
UGANDA.—Fort Portal—Kwanza road, *Joy Bally* s.n., fl. Dec. 1939, in *Bally* S29 (PRE, photo; PROB); Fort Portal—Mbarara road, *Eggeling* E5502 (PRE; PROB); Ankole, Ruizi Riv., fl. 4. ii. 1951, *Jarrett* 441 (PROB).

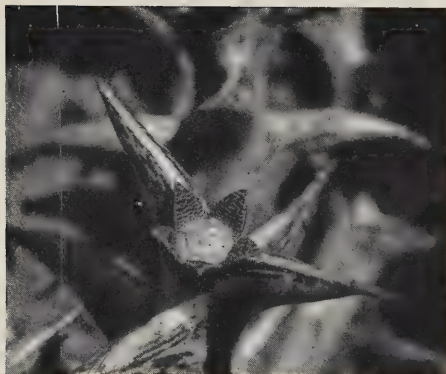
ZAMBIA.—Kalomo Distr., Machili, fl. 10. ii. 1961, *Fanshawe* 6234 (NDO; SRGH).

The sterile and fruiting specimens from Congo and Rwanda are not, of course, absolutely positively identifiable but have been included here as the stems and habit are considered to match those of *C. schweinfurthii* rather than of *Stapelia semota* N. E. Br., the only other Stapeliad having somewhat similar stems which is known to occur in the area.

It seems probable that the species occurs more frequently than the records would suggest. It is known to be quite common in some parts of the Zambesi valley, particularly in the Wankie District, but the comparative insignificance of the plants, which are usually concealed by low herbs and grasses, the fact that the above-ground portions usually die down during the dry season (cf. *Duvalia polita* N. E. Br. which is also present in the Wankie Distr. growing under identical conditions) and its somewhat difficult cultivation, have all, no doubt, contributed towards the relatively infrequent gatherings and have possibly exaggerated the widely scattered nature of its distribution.

Despite the wide range of distribution there seems to be little variation of any significance; the corolla colour ranges from yellow to brownish and the markings have been variously described as, wine-red, red, terra-cotta, and purple. The distinctive, finely toothed outer corona varies somewhat in outline, being sometimes 10-pointed (*Obermeyer l.c.*), often 5-pointed, or more rarely, more or less circular. The 5-pointed coronas are formed by the adjacent sides of the deeply indented lobes being closely contiguous or sometimes fused together, in such cases the resulting points (apparent lobes) are opposite the corolla lobes.





*Caralluma schweinfurthii*, Great Ruaha Gorge, Central Tanzania, flowering in cultivation at Greendale, S. Rhodesia, Leach and Brunton 10139. Photo: L. C. Le

The plants from Gt. Ruaha Gorge, Central Tanzania have, in cultivation, developed stems which are much more robust than any others seen, either cultivated or wild, the flowers are also slightly larger than the average. However, in view of the more or less normal size of the stems of these plants when collected and the fact that *Greenway* 4595, from Kondoa-Irangi, shews some even larger flowers in conjunction with stems of normal proportions, it is not considered that the giant Great Ruaha plants should be accorded any taxonomic recognition.

While *C. schweinfurthii* does not appear to have any particularly close affinity with other members of the genus there are, as is so often the case with the *Stapelieae*, some remarkable similarities to be observed in several taxa belonging to other genera, such as *Piранthus*, *Pectinaria* and *Stultitia* and which it is hoped to discuss in a later paper, meanwhile it is the present authors' opinion that this species fits best into and should therefore be retained in *Caralluma*.

The type of *C. schweinfurthii* has apparently been destroyed and no paratypes are known to exist but comparison of the specimens from the vicinity of the presumed type locality with Berger's description and figure of the corona (*l.c.*) leaves no doubt regarding the identity of the species. Of the three flowering specimens from the Rutshuru plain, *G. de Witte* 1023 (BR) seems most likely to have been collected at the locality closest to that of Stuhlmann's 2208, as Emin Pasha's party camped at 'Vichumbi' on May 10, 1891 (*G. Schweitzer, The Life & Work of Emin Pasha*, 2: 206) and has therefore been selected as the neotype.

There does remain, however, a very slight element of doubt regarding the

type locality; in Berger's original description this was given as: near Nswiwa, Itande. It seems certain that the locality which Berger had in mind and which was subsequently accepted by White & Sloane (*l.c.*), was that situated at approximately 8° S, 28° 45' E, that is, some 20–25 miles NE of Lake Mweru (Moero) and about halfway between southwestern Lake Tanganyika and the Luapula River.

Robyns (*l.c.*), however, points out that Stuhlmann's itinerary passed very much further to the north; the dates and localities given in Petermann's Geogr. Mitt. and in G. Schweitzer's 'The Life & Work of Emin Pasha' (1898) confirm this and show that the route followed by Emin Pasha's Expedition of 1890–92 passed close to the SW shore of Lake Edward before turning north to Lake Albert. The party was in the vicinity of the SW corner of Lake Edward between the 2nd and 15th May 1891, probably in the Rutshuru plain, as suggested by Robyns (*l.c.*), it follows therefore, that Stuhlmann's gathering 2208 dated May 9, 1891 must have been made in this area. Whilst the possibility exists that labels may have become mixed or even that the specimen may have been collected by some other collector at Berger's locality and erroneously credited to Stuhlmann and although, in the absence of the type or of any of the original labels or records, it is not possible for the locality to be fixed with certainty, it does seem to be a reasonably safe assumption that this was in the Rutshuru Plain just to the south-west of Lake Edward. It is in this area that several subsequent gatherings have been made, while none are recorded from Berger's locality.

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